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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/297,483 | 07/19/1999 | SHUNICHI SEKI | 005317-20009 | 9831 |

26021 7590 05/11/2004

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EXAMINER

CLEVELAND, MICHAEL B

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1762

DATE MAILED: 05/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------|--------------------------------------|------------------------------------|--|
| Advisory Action | Application No. 09/297,483 | Applicant(s) SEKI ET AL. | |
| | Examiner Michael Cleveland | Art Unit 1762 | |

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 29 April 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See attached.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See attached.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 37-49, 51, 53, 54, 62, 64, 66, 83-97 and 113-128.

Claim(s) withdrawn from consideration: _____.

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☒ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). 1/16/04.
10. ☐ Other: _____

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DETAILED ACTION

1. The proposed After Final amendment will not be entered because it raises new issues for further search and consideration, such as the limitation that the partition walls contact the substrate.

Response to Arguments

2. Applicant's arguments filed 4/29/04 have been fully considered but they are not persuasive.

Applicant states that Nagayama teaches that the ramparts are placed over the anode layer without partitioning the anode layers, citing Figs. 5C and 8A-8C. Applicant states that Fig. 19 does not show this feature. Fig. 19 shows that the partition walls (60) comprise horizontal portions that lie between each horizontal anode (3). These portions therefore lie between adjacent ones of the plurality of anodes so as to independently partition the adjacent ones of the plurality of anodes. A plurality of openings (50) exist over the anode where the partition walls do not exist. Applicant argues that the partition walls do not contact the substrate. The argument is unconvincing because it is directed to features which are not present in the claims. The issue would raise the new issue of whether Figs. 2, 6, 7, and 15-19 of Nagayama show that the partition walls (7,40, 60) contact the substrate (2).

Applicant argues that the references do not suggest the combination. Applicant has not alleged any specific errors in the Examiner's specific statements of motivation in the prior Office Action, and therefore Applicant's arguments as to this issue fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. If Applicant's argument is that the references do not contain an express suggestion to combine, the argument is unconvincing because an express suggestion by the references is not necessary to support a conclusion of obviousness.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the

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applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Applicant requests an affidavit supporting rejection of the claims based on the official notice, common knowledge, or personal knowledge of the examiner. The request is denied because Applicant has not adequately challenged that which was cited under Official Notice and further because an affidavit is only required if there is no evidentiary support for the noticed facts (See MPEP 2144.03C). In accordance with MPEP 2144.03C, "[t]o adequately traverse such a finding, an applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be well-known or common in the art." Applicant has not explained why the noticed facts are not considered to be well-known or common in the art. Furthermore, the record is replete with references supporting the examiner's citations of Official Notice. See the discussion, e.g., Paper No. 33, paragraph 4:

Applicant argues that they have timely challenged the Official Notice that ink-jet printing is a notoriously well known printing method in the responses of 5/28/2002 and 12/19/2002. The notice that ink-jet printing is a well-known printing method of applying material to selected locations was made in paper No. 12 (paragraph 13). Applicant challenged the statement in the succeeding Advisory action. However, the record is replete with evidence that the Examiner's assertion is correct (e.g., Shirasaki and all references cited in the rejection mailed 2/6/2000).

Applicant requests that the Examiner cite a reference that teaches "forming a hole injecting and transporting layer by independently filling each of the openings with a composition... using an ink-jet head, the composition comprising (1) a conductive material containing at least a lubricant, polyethylene dioxythiophene, and polystyrene sulfonic acid, and (2) a solvent" in support of his well-known assertion. The request is denied because the Examiner has not asserted that "forming a hole injecting and transporting layer by independently filling each of the openings with a composition... using an ink-jet head, the composition comprising (1) a conductive material containing at least a lubricant, polyethylene dioxythiophene, and polystyrene sulfonic acid, and (2) a solvent" is well known. What the Examiner has asserted is well known is that "ink-jet printing is a well-known method of supplying material to selected locations." (Paper No. 12, paragraph 13, still present in Paper No. 30, paragraph 4). In order to convincingly traverse on this grounds, Applicant MUST 1) state for the record that at the time of filing, ink-jet printing was NOT a well-known method of supplying material to selected locations, and 2) provide convincing explanation why each reference of record does not contradict the statement. Responses that ink-jet printing was not well known in particular contexts other than "supplying material to selected locations" will not be considered responsive to the statement. However, the art cited above is considered relevant to Applicant's arguments.

and Paper No. 26, Response to Arguments:

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Applicant's arguments regarding the rejection of claim 58 over the Jonas patents are unconvincing for the reasons given in the final rejection. To wit: Applicant's argument regarding the viscosity and surface tension of the composition are not convincing because the claimed ranges of viscosities and surface tensions are well known as operable in printing methods (see, for instance, the references cited in the office action mailed 2/17/2000, especially Itoh '721 and Taniguchi '572), and therefore one of ordinary skill in the art would have expected to have used such viscosities and surface tensions with a reasonable expectation of success. The Examiner notes that Applicant has not stated that optimization of viscosity and surface tension is not obvious in coating processes in general, nor in the processes explicitly listed by Jonas. Applicant has merely challenged the Examiner's citation of Official Notice that flowability (and therefore viscosity) and wettability (and therefore surface tension) of coating compositions are well known as result-effective coating parameters and stated that no evidence of such was provided in the prior office action. The Examiner disagrees, given that the office action of 2/17/2000 was cited in the response to argument section of the prior office action. In the interest of citing further evidence of the assertion, the Examiner cites as evidence that the flowability and viscosity are result-effective parameters in a variety of coating processes: Brownlee et al. (U.S. Patent 3,913,825, col. 9, lines 24-47), Beyer et al. (U.S. Patent 3,952,698, col. 3, lines 47-63), Fefferman (U.S. Patent 4,459,320, col. 6, lines 51-60), Audykowski et al. (U.S. Patent 4,544,623, hereafter '623, col. 1, lines 21-43). The Examiner further cites as evidence that the wettability and surface tension are result-effective parameters in a variety of coating processes: Neer (U.S. Patent 5,680,893, col. 7, lines 25-46) and Andersen et al. (U.S. Patent 5,508,072, col. 57, lines 16-40).

Therefore, because Applicant has not adequately traversed the Examiner's statements of Official Notice, the statements 1) that ink-jet printing is a well-known method of printing and 2) that factors such as the flowability of an ink and its wetting ability on a surface are well known parameters in coating processes, and that the flowability and wetting ability are controlled by the viscosity, surface tension, and contact angle with any dispensing nozzle of the solution are admitted prior art.

Applicant argues that the contact angles, viscosities, and surface tensions have an effect on the physical properties of the formed product, as described at pp. 5-9 of the specification. The discussion of contact angle, viscosity, and surface tension each discuss only the features of the process of ink-jet printing and not to the features of an EL device. Applicant asserts that at p. 11, lines 15-16 teaches that the film thickness and film resistance affect the light emission characteristics of the organic EL element. The argument is unconvincing because the disclosure at pp. 5-9 do not state that the contact angles, viscosities, and surface tensions of the inks control the film thickness and resistance. In fact, this statement contradicts the argument that the contact angles, viscosities, and surface tension produce necessary effects in the EL device because the

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same ink can be used to deposit films of different thicknesses (by depositing more of the ink) and because the resistance of the film may be controlled for instance, by the amount of PSS doped into the PEDT film. Also, films of desired thickness may be deposited by methods other than ink-jet printing (e.g., vacuum evaporation) and resistance is a property of the material deposited as the layer, not of the ink used to deposit it. Layers with the same resistance may be printed by methods other than ink-jet printing. Furthermore, the assertions of advantage are unsupported by a showing of evidence which is commensurate in scope with the claims. Furthermore, the argument does not address the further obviousness rejections. See remarks regarding claims 38-44.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Cleveland whose telephone number is (571) 272-1418. The examiner can normally be reached on Tuesday-Friday and alternate Mon, 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael Cleveland
Patent Examiner
May 6, 2004